Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) ~~A~~ An isolated polynucleotide encoding mammalian Prickle protein, wherein the polynucleotide comprises a sequence selected from the following nucleic acid sequences of (1) to (4):

(1) a nucleic acid sequence that encodes the amino acid sequence of SEQ ID NO: 1~~, or a complementary sequence thereof~~;

(2) ~~the~~ a nucleic acid sequence ~~of~~ as shown in SEQ ID NO: 2~~, or a complementary sequence thereof~~;

(3) a nucleic acid sequence that ~~encodes an amino acid sequence with one or more amino acid deletions, insertions, substitutions, or additions to the amino acid sequence of SEQ ID NO: 1, or a sequence complementary to said nucleic acid sequence~~ has at least 95% identity with a nucleic acid sequence comprising the nucleic acid sequence as shown in SEQ ID NO:2, and encodes an amino acid sequence that binds PSD-95; and

(4) a nucleic acid sequence that hybridizes with a complementary sequence of the nucleic acid sequence as shown in SEQ ID NO:2 ~~the sequence of (2)~~ under stringent conditions of 2x SSC, 0.1% SDS, 50°C or 1x SSC, 0.1% SDS, 37°C.

2. (Currently amended) A vector comprising the polynucleotide of claim 1 or 10.

3. (Currently amended) A host cell comprising the polynucleotide of claim 1 or 10.

4. (Currently amended) A method for producing a mammalian Prickle protein encoded by the polynucleotide of claim 1, wherein the method comprises the ~~step of translating said polynucleotide~~ steps of culturing the host cell comprising the polynucleotide of

claim 1, and recovering an expressed protein from said host cell or the culture supernatant thereof.

5. (Currently amended) A purified fragment of a polypeptide encoded by ~~the~~ a polynucleotide ~~of claim 1,~~ encoding mammalian Prickle protein, wherein the polynucleotide comprises a sequence selected from the following nucleic acid sequences of (1) to (4):

(1) a nucleic acid sequence that encodes the amino acid sequence of SEQ ID NO:1;

(2) a nucleic acid sequence as shown in SEQ ID NO: 2;

(3) a nucleic acid sequence that has at least 95% identity with a nucleic acid sequence comprising the nucleic acid sequence as shown in SEQ ID NO:2, and encodes an amino acid sequence that binds PSD-95; and

(4) a nucleic acid sequence that hybridizes with a complementary sequence of the nucleic acid sequence as shown in SEQ ID NO:2 under stringent conditions of 2x SSC, 0.1% SDS, 50°C or 1x SSC, 0.1% SDS, 37°C,

wherein the fragment comprises at least eight amino acid residues and a PET domain.

6. (Canceled).

7. (Currently amended) ~~A~~ An isolated nucleotide chain that encodes ~~the~~ a polypeptide fragment of ~~claim 5~~ a polypeptide encoded by a polynucleotide encoding mammalian Prickle protein, wherein the polynucleotide comprises a sequence selected from the following nucleic acid sequences of (1) to (4):

(1) a nucleic acid sequence that encodes the amino acid sequence of SEQ ID NO:1;

(2) a nucleic acid sequence as shown in SEQ ID NO: 2;

(3) a nucleic acid sequence that has at least 95% identity with a nucleic acid sequence comprising the nucleic acid sequence as shown in SEQ ID NO:2, and encodes an amino acid sequence that binds PSD-95; and

(4) a nucleic acid sequence that hybridizes with a complementary sequence of the nucleic acid sequence as shown in SEQ ID NO:2 under stringent conditions of 2x SSC, 0.1% SDS, 50°C or 1x SSC, 0.1% SDS, 37°C,

wherein the fragment comprises at least eight amino acid residues and a PET domain.

8. (Previously presented) A host cell comprising the vector of claim 2.

9. (Canceled).

10. (New) An isolated polynucleotide comprising a complementary sequence of the polynucleotide of claim 1.

11. (New) The polynucleotide of claim 1, wherein the polynucleotide comprises a nucleic acid sequence that has at least 99% identity with a nucleotide sequence comprising the nucleotide sequence of SEQ ID NO:2.

12. (New) The polynucleotide of claim 1, wherein the polynucleotide comprises a nucleic acid sequence that encodes a PET domain and a LIM domain.

13. (New) The polynucleotide of claim 12, wherein the PET domain corresponds to position 19-89 and the LIM domains correspond to positions 130-186, 195-246, and 254-310 of the amino acid sequence of SEQ ID NO:1.